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File: DWPI

Oct 15, 1996

DERWENT-ACC-NO: 1996-515097
DERWENT-WEEK: 199906
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TITLE: Porous sheet for absorbent articles - comprises crystalline polyolefin resin,
cpd. of specified b.pt. and inorganic particles

INVENTOR: KITO, T; SATO, T ; TORIMAE, Y

PATENT-ASSIGNEE:

ASSIGNEE

KAO CORP

CODE

KAOS

PRIORITY-DATA: 1995JP-0016300 (February 2, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 08269220 A	October 15, 1996		010	C08J009/00
US 5849001 A	December 15, 1998		000	A61F013/15
CN 1136425 A	November 27, 1996		000	A61F013/15
TW 336166 A	July 11, 1998		000	A61F013/15

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 08269220A	August 25, 1995	1995JP-0217841	
US 5849001A	February 2, 1996	1996US-0596401	
CN 1136425A	February 2, 1996	1996CN-0101258	
TW 336166A	January 18, 1996	1996TW-0100572	

INT-CL (IPC): A61 F 5/44; A61 F 13/15; B29 C 47/00; B29 C 55/04; B29 K 23/00; B29 K 103/04; B29 K 105/04; C08 J 9/00; C08 K 7/18; C08 L 23/00

ABSTRACTED-PUB-NO: JP 08269220A

BASIC-ABSTRACT:

Porous sheet (I) is prepd. by stretching sheet (II) of a compsn. (III) composed of (A), (B) and (C) at least unidirectionally. (A) is crystalline polyolefin resin(s) (63-90 wt%) and (B) is cpd having b.pt. greater than 240deg. C under ordinary pressure and m.pt. is less than 90deg. C (37-10 wt%). (C) is organic particles with av. particle size 0.3-8µm max. particle size below 13µm and b.pt. above moulding temp. of (III). Absorbent articles comprising (I), liquid permeable surface material and absorbent are claimed also.

Pref. (I) has moisture vapour permeability 0.5-4.0 g/10cm²-hr. (A) is polypropylene resin, ethylene/propylene block copolymer resin or compsn. of ethylene/propylene block copolymer resin and polypropylene resin and/or polyethylene resin. (B) is mineral oil or ester derived from aliphatic carboxylic acid and polyol. (C) is calcium carbonate. (B) is e.g. ester(s) of trimethylolpropane and lauric acid, mineral oil (e.g. "Diana process oil PW-900"(RTM)). Typical compsn. of (III) is (A)/(B)=73/27-85/15 compsn. 100 pts wt and (C) 12-30 pts wt, (III) is moulded to sheet(s) at 180-250deg. C (pref. 190-240deg. C) to obtain (II). (II) is stretched to 1.2-4.0 (pref. 1.3-3.0) by usual manner to obtain (I).

USE - (I) is useful as backing material for prepn. of absorbent articles.

ADVANTAGE - (I) has good drape, mechanical strength, breathability, moisture vapour permeability and leakproof properties. (I) is prepd. by continuous process efficiently.

ABSTRACTED-PUB-NO:

US 5849001A

EQUIVALENT-ABSTRACTS:

Porous sheet (I) is prepd. by stretching sheet (II) of a compsn. (III) composed of (A), (B) and (C) at least unidirectionally. (A) is crystalline polyolefin resin(s) (63-90 wt%) and (B) is cpd having b.pt. greater than 240 deg. C under ordinary pressure and m.pt. is less than 90 deg. C (37-10 wt%). (C) is organic particles with av. particle size 0.3-8 μ m max. particle size below 13 μ m and b.pt. above moulding temp. of (III). Absorbent articles comprising (I), liquid permeable surface material and absorbent are claimed also.

Pref. (I) has moisture vapour permeability 0.5-4.0 g/10cm²-hr. (A) is polypropylene resin, ethylene/propylene block copolymer resin or compsn. of ethylene/propylene block copolymer resin and polypropylene resin and/or polyethylene resin. (B) is mineral oil or ester derived from aliphatic carboxylic acid and polyol. (C) is calcium carbonate. (B) is e.g. ester(s) of trimethylolpropane and lauric acid, mineral oil (e.g. "Diana process oil PW-900" (RTM)). Typical compsn. of (III) is (A)/(B)=73/27-85/15 compsn. 100 pts wt and (C) 12-30 pts wt, (III) is moulded to sheet(s) at 180-250 deg. C (pref. 190-240 deg. C) to obtain (II). (II) is stretched to 1.2-4.0 (pref. 1.3-3.0) by usual manner to obtain (I).

USE - (I) is useful as backing material for prepn. of absorbent articles.

ADVANTAGE - (I) has good drape, mechanical strength, breathability, moisture vapour permeability and leakproof properties. (I) is prepd. by continuous process efficiently.

CHOSEN-DRAWING: Dwg.0/1

TITLE-TERMS: POROUS SHEET ABSORB ARTICLE COMPRISE CRYSTAL POLYOLEFIN RESIN COMPOUND SPECIFIED INORGANIC PARTICLE

DERWENT-CLASS: A17 A96 D22 P32

CPI-CODES: A04-G01E; A08-B04; A09-A08; A11-B06D; A12-S04A2; A12-S07; D09-C06;

ENHANCED-POLYMER-INDEXING:

Poly mer Index [1.1] 018 ; G0033*R G0022 D01 D02 D51 D53 ; H0000 ; H0011*R ; S9999 S1309*R ; S9999 S1581 ; P1150 Polymer Index [1.2] 018 ; R00326 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D82 ; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83 ; H0000 ; H0022 H0011 ; H0044*R H0011 ; S9999 S1309*R ; S9999 S1581 ; P1150 ; P1161 ; P1285 ; P1343 Polymer Index [1.3] 018 ; ND01 ; ND07 ; N9999 N5936 N5914 ; N9999 N5925 N5914 ; B9999 B5221 B4740 ; B9999 B5174 B5152 B4740 ; B9999 B5163 B5152 B4740 ; B9999 B4795 B4773 B4740 ; Q9999 Q9370 ; B9999 B4091*R B3838 B3747 ; B9999 B4875 B4853 B4740 ; K9392 ; B9999 B3383*R B3372 ; B9999 B4171 B4091 B3838 B3747 ; N9999 N5970*R ; N9999 N6439 ; B9999 B3601 B3554 ; B9999 B4831*R B4740 Polymer Index [1.4] 018 ; D01 D11 D10 D50 D63 D93 D95 F27 F26 F28 F89 F41 F90 F91 ; G3521 D01 D02 ; A999 A282 A260 ; B9999 B5572*R ; B9999 B5607 B5572 Polymer Index [1.5] 018 ; D00 ; R01278 D00 F44 C* 4A O* 6A Ca 2A ; A999 A000*R ; S9999 S1456*R ; B9999 B5209 B5185 B4740

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1996-161396

Non-CPI Secondary Accession Numbers: N1996-434379

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L4: Entry 3 of 22

File: DWPI

Oct 8, 1998

DERWENT-ACC-NO: 1998-542650

DERWENT-WEEK: 199846

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TITLE: Stretched thinned film used as breathable barrier fabric used in outdoor fabrics, infection control products, etc. - comprises thermoplastic polymer, filler having specific average size and monofunctional hindered phenol

INVENTOR: JACOBS, R L; STOPPER, S R

PATENT-ASSIGNEE:

ASSIGNEE

KIMBERLY-CLARK WORLDWIDE INC

CODE

KIMB

PRIORITY-DATA: 1998US-0037345 (March 10, 1998), 1997US-041888P (April 2, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9844025 A1	October 8, 1998	E	026	C08J005/18
AU 9867850 A	October 22, 1998		000	C08J005/18
EP 973824 A1	January 26, 2000	E	000	C08J005/18
BR 9808123 A	March 8, 2000		000	C08J005/18
CN 1259153 A	July 5, 2000		000	C08J005/18
US 6156421 A	December 5, 2000		000	B32B003/00
MX 9909051 A1	December 1, 1999		000	C08J005/18
AU 734378 B	June 14, 2001		000	C08J005/18
KR 2001005896 A	January 15, 2001		000	C08J005/18

DESIGNATED-STATES: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ DE DK EE ES FI GB GE GH
GM GW HU ID IL IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MD MG MK MN MW MX NO NZ PL PT
RO RU SD SE SG SI SK SL TJ TM TR TT UA UG UZ VN YU ZW AT BE CH DE DK EA ES FI FR GB GH
GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW BE DE ES FR GB IT NL SE

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
WO 9844025A1	March 27, 1998	1998WO-US06173	
AU 9867850A	March 27, 1998	1998AU-0067850	
AU 9867850A		WO 9844025	Based on
EP 973824A1	March 27, 1998	1998EP-0913256	
EP 973824A1	March 27, 1998	1998WO-US06173	
EP 973824A1		WO 9844025	Based on
BR 9808123A	March 27, 1998	1998BR-0008123	
BR 9808123A	March 27, 1998	1998WO-US06173	
BR 9808123A		WO 9844025	Based on
CN 1259153A	March 27, 1998	1998CN-0805723	
US 6156421A	April 2, 1997	1997US-041888P	Provisional
US 6156421A	March 10, 1998	1998US-0037345	
MX 9909051A1	October 1, 1999	1999MX-0009051	
AU 734378B	March 27, 1998	1998AU-0067850	
AU 734378B		AU 9867850	Previous Publ.
AU 734378B		WO 9844025	Based on
KR2001005896A	October 1, 1999	1999KR-0708973	

INT-CL (IPC): B32 B 3/00; B32 B 3/26; B32 B 27/12; C08 J 5/18; C08 K 13/02

ABSTRACTED-PUB-NO: US 6156421A
BASIC-ABSTRACT:

A stretched thinned film comprises 30-70 wt.% thermoplastic polymer, 30-70 wt.% filler having an average size less than 10 μ m and 100-1500 ppm monofunctional hindered phenol, and is a breathable barrier.

Also claimed is a method of making a breathable barrier fabric comprising forming a film extrudate of the above composition, heating the film and stretching in at least one direction and forming a microporous film having a WVTR in excess of 300 g/m²/24 hours.

Preferably the monofunctional hindered phenol comprises a tocopherol of 2,5,7,8-tetramethyl-2-(4',8',12'-trimethyltridecyl)-6-chromanol, and is present in the film in an amount of 100-1000, preferably 100-600 ppm. The thermoplastic polymer comprises a polyolefin and their blends and copolymers, preferably a blend or copolymer selected from polyethylene and polypropylene. The filler further comprises calcium carbonate particles. The film has a basis weight of less than 35 g/m², a peak load in excess of 15 lbs and a WVTR of 300 g/m²/24 hours. The film is stretched to 50-90% elongation to break in a single direction, or is uniaxially stretched in the machine direction at least 2.5 times its original length. The stretched-filled film has WVTR of at least 1500 g/m²/24 hours. The method further comprises laminating the film to a non-woven web.

USE - Used in breathable barrier fabrics, e.g. outdoor fabrics, e.g. tarpaulins, canopies, jackets, socks, etc., protective cover, e.g. cover for vehicles, equipment left outdoors, e.g. grills, garden equipment, etc., personal care products, e.g. adult incontinence products, feminine hygiene products, etc., infection control products, e.g. surgical gowns and drapes, face masks, footwear, lab coats, etc., and garments, e.g. undergarments, jackets, etc..

ADVANTAGE - The material is permeable to water vapour and is comfortable to wear.
ABSTRACTED-PUB-NO:

WO 9844025A
EQUIVALENT-ABSTRACTS:

A stretched thinned film comprises 30-70 wt.% thermoplastic polymer, 30-70 wt.% filler having an average size less than 10 μ m and 100-1500 ppm monofunctional hindered phenol, and is a breathable barrier.

Also claimed is a method of making a breathable barrier fabric comprising forming a

film extrudate of the above composition, heating the film and stretching in at least one direction and forming a microporous film having a WVTR in excess of 300 g/m²/24 hours.

Preferably the monofunctional hindered phenol comprises a tocopherol of 2,5,7,8-tetramethyl-2-(4',8',12'-trimethyltridecyl)-6-chromanol, and is present in the film in an amount of 100-1000, preferably 100-600 ppm. The thermoplastic polymer comprises a polyolefin and their blends and copolymers, preferably a blend or copolymer selected from polyethylene and polypropylene. The filler further comprises calcium carbonate particles. The film has a basis weight of less than 35 g/m², a peak load in excess of 15 lbs and a WVTR of 300 g/m²/24 hours. The film is stretched to 50-90% elongation to break in a single direction, or is uniaxially stretched in the machine direction at least 2.5 times its original length. The stretched-filled film has WVTR of at least 1500 g/m²/24 hours. The method further comprises laminating the film to a non-woven web.

USE - Used in breathable barrier fabrics, e.g. outdoor fabrics, e.g. tarpaulins, canopies, jackets, socks, etc., protective cover, e.g. cover for vehicles, equipment left outdoors, e.g. grills, garden equipment, etc., personal care products, e.g. adult incontinence products, feminine hygiene products, etc., infection control products, e.g. surgical gowns and drapes, face masks, footwear, lab coats, etc., and garments, e.g. undergarments, jackets, etc..

ADVANTAGE - The material is permeable to water vapour and is comfortable to wear.

CHOSEN-DRAWING: Dwg.1/1

TITLE-TERMS: STRETCH THIN FILM BREATH BARRIER FABRIC OUTDOOR FABRIC INFECT CONTROL PRODUCT COMPRISE THERMOPLASTIC POLYMER FILL SPECIFIC AVERAGE SIZE MONOFUNCTIONAL HINDERED PHENOL

DERWENT-CLASS: A17 A96 D22 E13 F07 P73

CPI-CODES: A08-A01; A08-R01; A09-A09; A11-B02A; A12-S06; D09-C02; D09-C04; D09-C04D; E06-A01; F03-C02A;

CHEMICAL-CODES:

Chemical Indexing M3 *01*

Fragmentation Code

D012 D016 D025 D120 H4 H401 H441 H8 M210 M211

M225 M232 M240 M283 M320 M412 M511 M520 M530 M540

M781 M903 M904 M910 Q130 Q261 Q323 Q624 R043

Specific Compounds

00179K 00179U

Registry Numbers

0179U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0179U; 1278U

ENHANCED-POLYMER-INDEXING:

Polymer Index [1.1] 018 ; G0033*R G0022 D01 D02 D51 D53 ; H0000 ; H0011*R ; H0317 ; S9999 S1285*R ; P1150 Polymer Index [1.2] 018 ; R00326 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D82 ; R00964 G0044 G0033 G0022 D01 D02 D12 D10 D51 D53 D58 D83 ; H0000 ; H0317 ; S9999 S1285*R ; H0022 H0011 ; P1150 ; P1161 ; P1285 ; P1343 Polymer Index [1.3] 018 ; ND01 ; Q9999 Q8004 Q7987 ; K9745*R ; B9999 B5243*R B4740 ; B9999 B5152*R B4740 ; B9999 B4875 B4853 B4740 ; Q9999 Q7681*R ; Q9999 Q7705 Q7681 ; Q9999 Q8026 Q7987 ; Q9999 Q7090 Q7056 ; Q9999 Q7067 Q7056 ; Q9999 Q7056*R ; Q9999 Q8366*R ; Q9999 Q9212*R ; Q9999 Q6826*R ; N9999 N5936 N5914 ; B9999 B5174 B5152 B4740 ; N9999 N7192 N7023 ; K9676*R ; K9518 K9483 Polymer Index [1.4] 018 ; R01278 D00 F44 C* 4A O* 6A Ca 2A ; A999 A237 ; S9999 S1456*R ; B9999 B5209 B5185 B4740 Polymer Index [1.5] 018 ; A999 A486*R ; A999 A771 Polymer Index [1.6] 018 ;

D01 F07*R ; A999 A544 A486 ; A999 A771 ; K9847*R K9790

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1998-163088

Non-CPI Secondary Accession Numbers: N1998-422412